February-14-13 2:27:42 PM

Item ID: D3901-1 Accept \*N900040100\* Setup Start Revision ID: Item Name: Bar Start Date: Start Qty: 8.00 \*8\* 2/11/13 Cust Item ID: Required Date: 2/28/13 Reg'd Qty: 8.00 \*Q\* **Customer:** Reference: Run Process Plan: Date: 13-02 Approvals: Tooling: Date: QC: Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. **Work Center ID** Description Qty Qty **Run Hours** Code Number Stamp Revision Nor Draw Nbr E D3901 100 0.00 al 13/02/27 \*100\* Cold Saw Memo Hyd Mech Cut blanks at 55.1875" 110 0.00 \*110\* HAAS 1 0.00 and 13/03/04 Memo HAAS CNC vertical machine #1 1-Mill as per folio FB090 & dwg D3901, FOLIO REV: A DWG REV:

2-Deburr as required

NCR: Y	es / No				WORK ORDER NON-	CONFORI	MANCE / UPI	DATE	QA Closed:	Date:	
Work Orde	r:				DISPOSITION	7		AGAINST DE	PARTMENT,	/PROCESS	7 [7]
Part N NCR N					Rework Scrap Use-as-is Work Order Update	Jse-as-is Thermoforming Finishi			Pro Rec/Stor	Engineering Quality Other	
Root					ption of work order update	Initial		tion	Sign &		
Cause	Date	Step	Qty	(	or Non-conformance	Chief Eng	Descr	ription	Date	Verification	QC Inspector
Doc/Data quip/Tooling	-										
Operator											
Material											
Setup	-	i						•			
Other		ł									
rocess	-										
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		1,			F	AULT CATE	GORY				-
Landir	ng Gear				General						
ſ	Bending				Bend	Grain			Ovalized		Pressure/Forced
Ì	Centre N	ot Concei	ntric to (	o/s	BOM/Route	Hardw	are		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged	Inspec	tion Incomplete		Part Incorre	ct [	Weld
Ì	Crushed/	Crimped.	_		Burrs	Instruc	tions Incomplete/I	Unclear	Part Lost/M	issing	Wrong Stock Pulled
	Cuffs				Contamination	Maint	enance		Part Moved	_	_
Ī	Heat Trea	at			Countersink	Mislab	eled		Positioned \	Wrong	_
	Inspectio	n Strip in	Tube		Cut Too Short	Misrea	d		Power Loss/	/Surge	Other
· •	Ripples in	n Bend			Drill Holes	Offset					
İ	Torque V	Vaves in E	Extrusio	n	Drawing	Out of	Calibration				
Ī	Turning S	Sequence			T <sub>Finish</sub>	Out of	Sequence				

Outside Dimensions

DQA: Date:

Wave/Twist in Tube

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

February-14-13 2:27:42 PM

Packaging

Item ID: D3901-1 Accept \*N900040100\* Setup Start **Revision ID:** Item Name: Bar Start Date: 2/11/13 Start Qty: 8.00 **Cust Item ID:** Required Date: 2/28/13 \*Q\* Reg'd Qty: 8.00 **Customer:** Reference: Run Process Plan: Approvals: Date: Tooling: Date: Stop Date: SPC (Y/N): Date: Sequence ID/ Operation Tool ID Tool # Plan Set Up/ Accept Reject Reject Insp. Work Center ID **Description** Qty Qty Number Stamp **Run Hours** Code 120 QC2- Inspect parts off machine FAI/FAIB 0.00 al 13/03/04 8 a \*120\* 0.00 Memo Quality Control \*\*\*EXTRA MATERIAL WILL BE CUT ON ASSEMBLY\*\*\* 130 QC8- Inspect parts - second check 0.00 D.a 13/03/05 \*130\* QC 0.00 Memo Quality Control \*\*\*EXTRA MATERIAL WILL BE CUT ON ASSEMBLY\*\*\* Identify as per dwg & Stock Location: W/A- 00( 140 \*1//0\* EL 13-3-5 Packaging 0.00 Memo

NCR:	Yes	/	No

DQA: Date:

NCR: Y	es / No				WORK ORDER NON-	CONFOR	RMANCE / UP	PDATE			
							•		QA Closed:	Date	:
Work Orde	r·				DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
WORK OTHE	·		·····	/	Rework	7 📗	Skid-tube	Crosstube	]	Water Jet	Engineering
Part N	0.			•	Scrap	1	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
					Use-as-is	The	rmoforming	Finishing	Rec/Sto	re/Packaging	Other
NCR N	0				Work Order Update	]	Large Fab	Composite	]	Supplier	
Root				Descri	ption of work order update	Initial	A	ction	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief En	g Des	cription	Date	Verification	QC Inspector
Doc/Data											
quip/Tooling						Ì					
Operator					·						
Material	_					ļ					
Setup		}									1
Other	_										
Process	_		'								
Supplier	_	}									
Training	_										
Unapproved	<u> </u>	I			·	AULT CAT	ECORY			<u> </u>	
گ) <u>ا</u> شاهید ا	ig Gear				General	AULI CAI	EGURT				
Landin	Bending				Bend	Grain	•	<u> </u>	Ovalized	Г	Pressure/Forced
ŀ	Centre N	ot Conce	ntric to C	)/s	BOM/Route	Hardy		-	Over/Under	tolerance	Temperature/Cure
}	Cracks	or conce		"	Broken/Damaged	<b></b>	ction Incomplete	<u> </u>	Part Incorre	<u> </u>	Weld
f	Crushed/	Crimped		<b>—</b>	Burrs	$\boldsymbol{\vdash}$	ictions Incomplete	/Unclear	Part Lost/M	<u>-</u>	Wrong Stock Pulled
f	Cuffs		-		Contamination	<b></b>	tenance		Part Moved	-	·
ļ	Heat Trea	at			Countersink	Misla		-	Positioned	Wrong	
ŀ	Inspectio		Tube		Cut Too Short	Misre			Power Loss,		Other
	Ripples in				Drill Holes	Offse	t	<del></del>			
Ţ	Torque V	Vaves in E	Extrusion	,	Drawing	Out c	f Calibration				
Ţ	Turning S	Sequence			Finish	Out o	f Sequence				
Ī	Wave/Tv	vist in Tul	be		Folio	Outsi	de Dimensions				

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\*150\*

Quality Control

QC

Page 3

Item ID: D3901-1 Accept \*N900040100\* Setup Start \* **Revision ID:** Item Name: Bar **Start Date:** 2/11/13 Start Qty: 8.00 **Cust Item ID:** Required Date: 2/28/13 **Req'd Qty:** 8.00 \***2**\* **Customer:** Reference: Run Process Plan: Approvals: **Tooling:** Date: Date: Stop QC: \_\_\_\_ Date: \_ \_ \_ \_\_\_ SPC (Y/N): Date: Sequence ID/ Operation Tool ID Tool # Plan Reject Reject Set Up/ Accept Insp. Description **Work Center ID** Code Qty Number Stamp **Run Hours** 150 QC21- Final Inspection - Work Order Release 0.00

0.00

Memo

A13-03-4

NCR:	Yes	/ No				<b>WORK ORDER NON-C</b>	100	NFORM	ANCE / UP	DATE					
											(	QA Closed:	Da	ite:	
Work Orde						DISPOSITION				AGAINST DE	EP.	ARTMENT	/PROCESS		
WOIK Orde	٤١					Rework	1		Skid-tube	Crosstube	7		Water Jet		Engineering
Part I	Viα					Scrap			Machining	Small Fab	1	Pro	d. Eng. Coor.	$\vdash$	Quality
						Use-as-is			noforming	Finishing	1		·e/Packaging	-	Other
NCR I	No.					Work Order Update			Large Fab	Composite	]		Supplier		
Root					Descri	ption of work order update		nitial	Act	ion	T	Sign &			
Cause		Date	Step	Qty	(	or Non-conformance	Ch	ief Eng	Descr	iption	$\downarrow$	Date	Verification	'n	QC Inspector
Doc/Data	Ш										İ	•		1	
Equip/Tooling							l	:							
Operator											Ì				
Material															
Setup															
Other															
Process	Ш			·				,							
Supplier											l		* **		
Training															
Unapproved				<u> </u>			<u></u>			2	$\perp$				
							AUL	T CATE	GORY						<del></del>
Landi	_	I			<del></del>	General		1		<b></b>	_			_	7
	<u> </u>	Bending				Bend		Grain			-	Ovalized		_	Pressure/Forced
		Centre No	ot Concer	ntric to	o/s	BOM/Route	_	Hardwa			-	Over/Under		$\vdash$	Temperature/Cure
	L	Cracks				Broken/Damaged		Inspecti	on Incomplete		-1	Part Incorre		L	Weld
		Crushed/	Crimped.			Burrs	<u></u>	4	ions Incomplete/l	Jnclear	-	Part Lost/M	issing		Wrong Stock Pulled
		Cuffs				Contamination		Mainte			⊣	Part Moved			
		Heat Trea	it		<u> </u>	Countersink		Mislabe	led		-	Positioned V		_	7
		Inspection	n Strip in	Tube		Cut Too Short		Misread	i		╝	Power Loss/	'Surge		Other
		Pinnles in	Rond		ſ	Drill Holes	1	Offcot							

Out of Calibration

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

## **Picklist Print**

February-14-13 10:50:19 AM

Work Order ID:

97112

Parent Item:

D3901-1

Parent Item Name:

Bar

**Start Date: 2/11/13** 

Required Date: 2/28/13

Page 1

Start Qty: 8.00

Required Qty: 8.00

Comments:

IPP RevA: New issue DD verified by:EC verified by:JLM

IPP RevB: Now on cnc JFS 12/02/13

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
<b>M304B0.250x0.500</b> 304 BAR .250 x .500		Purchased	No			100	f	934.2140	4.513	38.004210	)		
104 BAR .230 X .300				Location		Loc Oty	<u>Lo</u>	c Code			THE NAME OF	**	····
				MAT049		934.214						1	•
				12390	)2	238.214			_3	8.005	any	L131	02/2
				12451	8	696					•		ه کمک

											DQA:	Dat	ie:	
NCR:	⁄es	/ No				WORK ORDER NON	-CO	NFORN	MANCE / UP	DATE				
									<u></u>		QA Closed:	Dat	e:	
Work Ord	~ ÷.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS		
Work Ord	er.					Rework			Skid-tube	Crosstube	1	Water Jet	$\neg$	Engineering
Part I	No.					Scrap	┪.		Machining	Small Fab	Pro	d. Eng. Coor.	ᅱ	Quality
		•				Use-as-is	7		noforming	Finishing	4	re/Packaging		Other
NCR I	No.					Work Order Update			Large Fab	Composite		Supplier		
								<u> </u>			T =. =			
Root	-					ption of work order update		Initial		tion	Sign &	., .,		001
Cause	_	Date	Step	Qty		or Non-conformance	CI	hief Eng	Desc	ription	Date	Verification	니	QC Inspector
Doc/Data		:					-							
Equip/Tooling												ļ		
Operator							ı							
Material			Ì									[		
Setup			į											
Other	Ш													
Process	<u> </u>						1						ļ	
Supplier			1											
Training	<u> </u>		ļ				1							
Unapproved	<u> </u>	<u> </u>	1		<u> </u>						<u></u>	<u> </u>		
							FAU	LT CATE	GORY				—	
Land	ing	1				General	_	٦		_	المالية الم	ſ		Pressure/Forced
	-	Bending			<b> </b>	Bend	$\vdash$	Grain		<u> </u>	Ovalized		$\vdash\vdash$	· ·
	<u> </u>	Centre N	ot Conce	ntric to	O/S  -	BOM/Route	-	Hardwa		$\vdash$	Over/Under	1	<b> </b>	Temperature/Cure
	<u>_</u>	Cracks			<u> </u>	Broken/Damaged	$\vdash$	<b>⊣</b> `	ion Incomplete		Part Incorre		-	Weld
	<u></u>	Crushed	'Crimped		_	Burrs	  -	<b>⊣</b>	ions Incomplete/	Unclear	Part Lost/M	- 1	لب	Wrong Stock Pulled
1	<u></u>	Cuffs			ļ	Contamination	-	Mainte			Part Moved			
	$\vdash$	Heat Tre			<u> </u>	Countersink	$\vdash$	Mislabe		<b> </b>	Positioned \		$\overline{}$	ا مید
1		Inspection	n Strip in	Tube		Cut Too Short		Misread	d	<u></u>	Power Loss,	Surge	الل	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drill Holes

Drawing

Finish Folio

DART AEROSPACE LTD	Work Order:	97112
Description: Bar	Part Number:	D3901-1
Inspection Dwg: D3901 Rev: E		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.25 Ref	+/-0.030	.249			Vein	41-06
4.00	+/-0.030	4.000			, (	n
24.00	+/-0.030	24.000	-		n-tene	7203
35.00	+/-0.030	35.000			1,1	14
44.51	+/-0.030	44.510			11	11
50.04	+/-0.100	50.040			l.	••
0.18	+/-0.030	. 178	_		Vein	711-02
0.50 Ref	+/-0.030	. 492			1.	*1
0.75	+/-0.030	750	/		/	14
0.50	+/-0.030	.500			,,	4.
1.75	+/-0.030	1.750			11	ħ.
0.50	+/-0.030	.500			1.	**

Measured by:	Audited by: Day	Preliminary Approval:
Date: /3/03/04	Date: 13 3 5 28	Date:

Rev	Date	Change	Revised by	Approved
A	09.09.15	New Issue	KJ	
B		Dimensions updated per Dwg Rev C	KJ 40	71
- <u>c</u>		Dimensions updated per Dwg Rev E	KJ 95	Chr

